

## CLAIMS

What is claimed is:

1. A method of treating or preventing dementia of Alzheimer's type, or  
5 other loss of cognitive function caused by reduced neuronal metabolism, comprising  
administering an effective amount of medium chain triglycerides to a patient in need  
thereof.
2. The method of Claim 1, wherein said administration is oral.
3. The method of Claim 1, wherein said administration is intravenous.
4. The method Claim 1, wherein said medium chain triglycerides are  
administered medium chain triglycerides are administered at a dose of about 0.5  
15 g/kg/day to about 10 g/kg/day.
5. The method of claim 1, further comprising coadministering L-carnitine  
or a derivative of L-carnitine.
6. The method Claim 5, wherein said administration is oral, and said  
20 medium chain triglycerides are administered at a dose of about 0.5 g/kg/day to about  
10 g/kg/day and said L-carnitine or said derivative of L-carnitine is administered at a  
dose of about 0.5 mg/kg/day to about 10 mg/kg/day.
7. The method of Claim 1, wherein said medium chain triglycerides are  
25 emulsified.
8. The method of claim 7, further comprising coadministering L-carnitine  
or a derivative of L-carnitine.
9. The method of Claim 8, wherein said emulsified medium chain  
30 triglycerides and L-carnitine or a derivative of L-carnitine are administered in a

formulation comprising 10-500 g emulsified medium chain triglycerides and 10-2000 mg L-carnitine or derivative of L-carnitine.

10. A method of treating or preventing dementia of Alzheimer's type, or other loss of cognitive function caused by reduced neuronal metabolism, comprising administering an effective amount of free medium chain fatty acids.

11. A method of treating or preventing dementia of Alzheimer's type, or other loss of cognitive function caused by reduced neuronal metabolism, comprising administering an effective amount of a medium chain triglyceride prodrug to a patient in need thereof.

12. A method of treating or preventing dementia of Alzheimer's type, or other loss of cognitive function caused by reduced neuronal metabolism, comprising administering an effective amount of a therapeutic agent which induces utilization of fatty acids and development of ketosis to a patient in need thereof.

13. A method of treating or preventing dementia of Alzheimer's type, or other loss of cognitive function caused by reduced neuronal metabolism, comprising coadministering an effective amount of an agent selected from the group consisting of medium chain triglycerides, medium chain fatty acids, and ketone bodies, and L-carnitine or a derivative of L-carnitine to a patient in need thereof.

14. The method of Claim 13, wherein said coadministration is intravenous, and said agent selected from the group consisting of medium chain triglycerides, medium chain fatty acids, and ketone bodies is administered at a dose of about 0.5 g/kg/day to about 10 g/kg/day and said L-carnitine or said derivative of L-carnitine is administered at a dose of about 0.5 mg/kg/day to about 10 mg/kg/day.

15. The method of Claim 13, wherein said agent selected from the group consisting of medium chain triglycerides, medium chain fatty acids, and ketone bodies and L-carnitine or a derivative of L-carnitine are administered in a formulation

comprising 10-500 g of said agent and 10-2000 mg L-carnitine or derivative of L-carnitine.

16. A therapeutic agent for the treatment of prevention or dementia of  
5 Alzheimer's type, or other loss of cognitive function caused by reduced neuronal  
metabolism comprising medium chain triglycerides.

17. A therapeutic agent for the treatment of prevention or dementia of  
Alzheimer's type, or other loss of cognitive function caused by reduced neuronal  
10 metabolism comprising free fatty acids derived from medium chain triglycerides .

18. A therapeutic agent for the treatment of prevention or dementia of  
Alzheimer's type, or other loss of cognitive function caused by reduced neuronal  
metabolism comprising a medium chain triglyceride prodrug.

19. A therapeutic agent for the treatment of prevention or dementia of  
Alzheimer's type, or other loss of cognitive function caused by reduced neuronal  
metabolism comprising an agent which induces utilization of fatty acids and  
development of ketosis to a patient in need thereof.